

Amendments to the Claims

1. (Original) A sintering system comprising: a tool chamber enclosing a sinter material; a laser system sintering said sinter material as a function of controller signals; and a controller generating said controller signals as a function of a predetermined tool design, said predetermined tool design comprising a first section of said tool comprising a joint component for coupling said first section to at least one other section of said tool.

2. (Original) The system of claim 1, wherein said predetermined tool design further comprises a second section of said tool, sintered separately from said first section, receiving said joint component of said first section in a second section receiving area.

3. (Original) The system of claim 2, wherein said predetermined tool design further comprises a plurality of joint components and receiving areas distributed on both said first section and said second section for coupling together sections of said tool.

4. (Original) The system of claim 3, wherein said first section and said second section define holes aligned during an assembly process of said tool, wherein said first section and said second section holes receive at least one bolt bolting said first section to said second section.

5. (Original) The system of claim 1, wherein said predetermined tool design further comprises a plurality of sections of said tool, sintered separately from said first section, at least one of said plurality of sections receiving said joint component of said

first section in a receiving area, said plurality of sections fitting together in a predetermined manner.

6. (Original) The system of claim 1, wherein said joint component comprises a tongue feature or a tongue feature comprising a cross pin for aligning said tongue feature with a second section receiving area.

7. (Original) The system of claim 1 further comprising a first heat sink positioned within said tool chamber for cooling said joint component or a second predetermined feature of said tool, thereby limiting warping of said joint component or said predetermined feature during sintering of said tool.

8. (Original) The system of claim 1, wherein said predetermined tool design comprises a buffer feature protecting said joint component or a second predetermined feature of said tool such that said buffer feature is primarily affected by heat generated during sintering in an area of said joint component or a second predetermined feature of said tool.

9. (Original) The system of claim 1, wherein individual contoured details of said tool are sintered or manufactured during separate operations as said tool and later coupled to said tool at predefined locations on said tool.

10. (Original) The system of claim 1 further comprising a plurality of predetermined features comprising said joint component, wherein all of said plurality of predetermined features are designed on one side of said tool.

11 - 17. (Canceled)

18. (Withdrawn) A sintering system comprising: a part cylinder enclosing a sinter powder; a first heat sink arrangement positioned within said tool chamber for cooling at least one of a first plurality of predetermined features of a tool on a first tool section, thereby limiting warping of said at least one of said first plurality of predetermined features during sintering of said first tool section; a second heat sink arrangement positioned within said tool chamber for cooling at least one of a second plurality of predetermined features of a tool on a second tool section, thereby limiting warping of said at least one of said second plurality of predetermined features during sintering of said second tool section, said second tool section adapted to couple to said first tool section; a laser system sintering said first tool section and said second tool section as a function of controller signals; and a controller generating said controller signals as a function of a predetermined tool design, predetermined positions of said first plurality of tool features and said second plurality of tool features, and a predetermined orientation of said first section and said second section within said part chamber as a function of minimize warping said tool features during sintering, wherein said predetermined tool design comprises a buffer feature protecting at least one of said first plurality of predetermined features or said second plurality of predetermined features

such that said buffer feature is primarily affected by heat generated during sintering in an area of said at least one of said first or second pluralities of predetermined features, wherein said first or second pluralities of predetermined features is designed on one side of said tool.

19. (Withdrawn) The system of claim 18, wherein said first or second pluralities of predetermined features comprise at least one of a step and thickness variation, a gusset, a stiffener, an interface and coordination feature for making interfaces, a construction ball interface, a coordination hole, a trim of pocket and drill insert, a hole pattern, or a hole for interfacing hardware.

20. (Withdrawn) The system of claim 18, wherein said buffer feature is removable such that damage is limited to said predetermined feature when said buffer feature is removed due to a weak connective link between said buffer feature and said predetermined feature.

21. (Withdrawn) The system of claim 18, wherein individual contoured details of said tool are sintered or manufactured during separate operations as said tool and later coupled to said tool.

22. (Withdrawn) The system of claim 18, wherein said controller generates said controller signals as a function of said predetermined tool design through activating said first heat sink arrangement or said second heat sink arrangement depending on which

tool section is required.

23 - 40. (Canceled)